Applicant: P. Bonutti Application No.: 10/795,887 Examiner: J. Cumberledge

Amendments to the Claims

1. (Previously presented) A method of performing total knee arthroplasty on a patient's knee, the method comprising, in the following order:

forming an incision of about 13 cm or less;

positioning a cutting guide member in alignment with a bone of the knee; cutting bone of at least the first and second condyles of the knee, including

initiating a cut in the bone while guiding the cutting tool along a guide surface of the guide member to form a cut surface,

angularly disposing the cutting tool along the guide surface in order to cut a section of the bone wider than the width of the guide, at least a portion of said cut section of bone being located in the interior of the body with respect to the incision,

removing the guide member from against the bone, and then completing the cut of the section of bone, while guiding the cutting tool along the cut in the cut section; and

positioning a total knee replacement component against the cut bone of the knee, wherein the [[skim] cut of the section of bone has a dimension longer than the guide surface of the guide member, and

wherein bone may be prepared for a total knee arthroplasty through an incision size substantially less wide than the longest width of bone to be cut, and using a guide surface substantially shorter than the longest width of bone to be cut.

2-3. (Canceled)

4. (Previously presented) The method of claim 1 wherein positioning the total knee replacement component includes positioning a first portion of the total knee replacement against the cut bone, and subsequently positioning a second portion of the total knee replacement component against the same cut bone.

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5. (Previously presented) The method of claim 4 further including the step of substantially

immovably connecting the first and second portions of the total knee replacement component

together after both portions have been positioned within the body, against the cut bone.

6. (Previously presented) The method of claim 1 further including suspending the distal

portion of the patient's leg from the knee, including bending the knee to a flexed condition, and

cutting the bone of the knee while the knee is bent in the flexed condition.

7. (Previously presented) The method of claim 6 wherein bending the knee includes

hyperflexing the knee by moving a bone on one side of a joint anteriorly with respect to a bone

on the other side of the joint, whereby additional working space is created within the joint, and

cutting the bone of the knee includes cutting the bone of the knee while the knee is hyperflexed.

8. (Original) The method of claim 1 further including distracting the knee while the distal

portion of the patient's leg is suspended from the knee, and wherein at least one of the steps of

cutting the bone and positioning the total knee replacement component is performed while the

knee is distracted.

9. (Original) The method of claim 1 further including displacing a patella of the knee.

10. (Original) The method of claim 9 further including cutting the patella while the patella

is displaced.

11. (Original) The method of claim 10 wherein the patella is displaced with an inner side

of the patella remaining facing inward.

12. (Original) The method of claim 11 wherein the inner side of the patella remains facing

inward during the cutting and positioning steps.

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13. (Original) The method of claim 1 further including everting a patella of the knee.

14. (Original) The method of claim 13 further including cutting the patella while the

patella is everted.

15. (Currently amended) A method of performing a total knee arthroplasty surgery on a

patient's joint, the method comprising, in the following order:

forming an incision of about 13 cm or less;

positioning a cutting guide member at least part ways through the incision, against a bone

of the joint, the guide member having a guide surface;

initiating a cut in the bone while guiding a cutting tool along the guide surface to form a cut

surface, at least a portion of said cut bone being located in the interior of the body with respect to

the incision enclosed by overlying skin and not exposed by the incision;

removing the guide member from against the bone of the joint;

positioning the cutting tool through the incision, and continuing the cut in the bone while

guiding the cutting tool along the cut surface;

positioning a first portion of a total knee replacement component against cut bone of one

side of a joint, and subsequently positioning a second portion of the total knee replacement

component against the cut bone on the same side of the joint; and

affixing the first and second portions of the total knee replacement component together

after both portions have been positioned against the cut bone within the body, each of the first

and second portions of the total knee replacement component having an articulating surface;

wherein bone may be prepared for a total knee arthroplasty through an incision size

substantially less wide than the longest width of bone to be cut, and using a guide surface

substantially shorter than the longest width of bone to be cut.

16-18. (Canceled)

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19. (Previously presented) The method of claim 15 further including the step of suspending

a distal portion of a patient's extremity connected with the joint.

20. (Previously presented) The method of claim 15 further including the step of distracting

the joint, and wherein at least one of the steps of positioning the guide member, positioning the

cutting tool, initiating the cut, and completing the cut is performed with the joint distracted.

21. (Currently amended) The method of claim 15 wherein initiating the cut and completing

continuing the cut are performed on a condyle of the bone.

22. (Previously presented) The method of claim 15 wherein initiating the cut and

completing the cut are performed on both condyles of the bone.

23. (Original) The method of claim 15 further including completing the cut while guiding

the cutting tool along the cut surface.

24. (Original) The method of claim 15 further including removing the guide member from

the bone before continuing the cut.

25. (Original) The method of claim 15 wherein the guide surface comprises a guide slot

and the step of positioning a cutting tool includes inserting the cutting tool into the guide slot.

26. (Previously presented) A method of performing a joint replacement surgery, including

cutting away a portion of bone of the joint, the method comprising:

forming an incision having a long dimension of about 13 cm or less, and a width

substantially less than the length;

aligning a cutting guide member with a bone of the joint, the guide member having

opposite ends with a transverse dimension which is less than the width of a portion of bone to be

cut away;

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positioning a cutting tool in association with a guide surface of the guide member;

initiating a cut in the bone while guiding the cutting tool along the guide surface to form a

cut surface;

angularly disposing the cutting tool along the guide surface in order to cut a section of the

bone wider than the width of the guide, the swath of the angularly disposed cut being formed at

an angle to the long dimension of the incision, and defining a width substantially greater than the

width of the incision, at least a portion of said cut being located in the interior of the body with

respect to the incision; and

continuing the cut in the bone while guiding the cutting tool along the cut surface,

wherein both medial and lateral condyles of the end portion of the bone are cut by the

cutting tool and wherein the guide member is removed from against the bone of the knee joint

prior to said step of continuing the cut in the bone

wherein bone may be prepared for a total knee replacement through an incision size

substantially less wide than the longest width of bone to be cut, and using a guide surface

substantially shorter than the longest width of bone to be cut.

27. (Original) The method of claim 26 further including positioning an implant against the

cut bone.

28. (Previously presented) The method of claim 27 wherein the joint is a knee, and the

transverse dimension of the opposite ends of the guide member is less than two-thirds the

distance between the medial and lateral epicondyles of the end portion of the bone.

29. (Original) The method of claim 28 wherein the guide member is mounted to the bone

and offset from a central longitudinal axis of the bone.

30. (Previously presented) The method of claim 29 wherein the joint is a knee, and the

guide member is intramedullary mounted to the bone.

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31. (Previously presented) The method of claim 29 wherein the joint is a knee, and the

guide member is extramedullary mounted to the bone.

32. (Previously presented) The method of claim 26, wherein said guide is operative when

at least half of the guide body is disposed laterally to a line defining the longitudinal axis of the

bone to be cut.

33. (Previously presented) The method of claim 26, wherein said guide is operative when

at least one end is positioned between the skin and the bone to be cut.

34. (Previously presented) The method of claim 26, wherein the guide is less wide than the

width of the incision.

35. (Previously presented) The method of claim 26, wherein the swath of the angularly

disposed cut is formed at about right angles to the long dimension of the incision.

36. (Previously presented) The method of claim 26, wherein the joint is a knee, and the

longest dimension of the incision is about 10 cm or less.